

=> d hist

(FILE 'HOME' ENTERED AT 10:14:06 ON 26 JUN 2001)

FILE 'REGISTRY' ENTERED AT 10:14:13 ON 26 JUN 2001

E META-TOLUYLENDIAMIN/CN
E TOLUENEDIAMINE/CN

L1

1 S E6
E METHYLBENZENEDIAMINE
E METHYLBENZENEDIAMINE/CN
E META-PHENYLENEDIAMINE, METHYL/CN

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1979:616661 CAPLUS

DN 91:216661

TI The role of meta difunctional benzene derivatives in oxidative hair dyeing. II. Reactions with p-aminophenols

AU Brown, Keith C.; Corbett, John F.

CS Clairol Res. Lab., Stamford, CT, 06902, USA

SO J. Soc. Cosmet. Chem. (1979), 30(4), 191-211
CODEN: JSCCA5; ISSN: 0037-9832

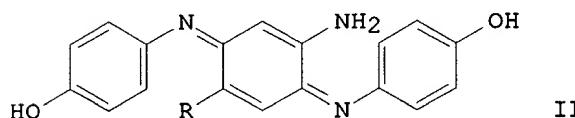
DT Journal

LA English

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 22, 25, 40

GI



AB In oxidative dyeing, oxidn. of p-aminophenols to p-benzoquinone monoimines

is the 1st step in color formation. The monoimines react as a free base at pH >8. Coupling of neutral monoimines with meta difunctional benzene couplers as the free bases or anions results in the formation of leucoindo

dyes which undergo rapid oxidn. to highly colored indo dyes. Oxidn. of mixts. contg. both p-aminophenol (I) [123-30-8] and p-phenylenediamine [106-50-3] results in preferential oxidn. of I. In the absence of couplers, the resulting monoimine reacts with both unoxidized I and with p-phenylenediamine to give analogs (II, R = OH and CH₂) of Bandrowski's base. In the presence of couplers, these latter reactions are suppressed and reaction occurs preferentially with the coupler. The reactivity of couplers towards monoimines is in the order resorcinol [108-46-3] > 4-amino-2-hydroxytoluene [2835-95-2] > 2,4-diaminoanisole [615-05-4] > m-aminophenol [591-27-5]. Thus, inclusion of p-aminophenols in oxidn. dye formulations contributes significantly to the color produced on hair and the resultant dyes have comparable stability to those formed from p-phenylenediamine.

ST oxidn hair dye amino phenol; meta difunctional benzene hair dye

IT Oxidation

(of aminophenols, in hair dye prepn.)

IT Kinetics of coupling reaction

(of imines, with aminophenols, in hair dye prepn.)

IT Kinetics of hydrolysis

(of indophenol oxidative hair dyes)

IT Ultraviolet and visible spectra

(substituent effect on reactivity and, of aminophenols, in hair dye prepn.)

IT Hair preparations

(dyes, oxidative, aminophenols reactions with coupling agents in relation to)

IT 95-80-7 106-50-3, reactions 108-45-2, reactions 615-05-4

823-40-5
RL: RCT (Reactant)
(coupling reaction of, in oxidative hair dye formation)
IT 2835-99-6
RL: RCT (Reactant)
(coupling reaction of, with aminophenolate, in oxidative hair dye formation)
IT 95-88-5 496-73-1
RL: RCT (Reactant)
(coupling reaction of, with aminophenols)
IT 6358-06-1 53222-92-7
RL: RCT (Reactant)
(coupling reaction of, with monoimines, and oxidative hair dye formation)
IT 108-46-3, biological studies 591-27-5 2835-95-2
RL: RCT (Reactant)
(coupling reactions of, in hair dye formation)
IT 72083-93-3 72083-94-4 72083-95-5 72083-96-6
RL: PRP (Properties)
(cyclization and hydrolytic kinetics of, hair dye formation in relation
to)
IT 24093-25-2P 71198-55-5P
RL: PRP (Properties); PREP (Preparation)
(formation and decompn. kinetics of, hair dye formation in relation
to)
IT 3009-34-5P
RL: RCT (Reactant); PREP (Preparation)
(formation and hydrolysis of)
IT 106-51-4P, preparation
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, by hydrolysis of benzoquinone imine)
IT 71082-02-5P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in hair dye preps.)
IT 72083-92-2P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in oxidative hair dye formation)
IT 500-85-6P 2582-41-4P 2701-88-4P 24093-23-0P 24093-25-2P
30127-99-2P 30128-00-8P 52200-93-8P 72083-78-4P 72083-79-5P
72083-80-8P 72083-81-9P 72083-82-0P 72083-83-1P 72083-84-2P
72083-85-3P 72083-86-4P 72083-87-5P 72083-88-6P 72083-89-7P
72083-90-0P 72083-91-1P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in oxidative hair dyeing)
IT 31679-92-2P
RL: PREP (Preparation)
(prepn. of)
IT 2835-96-3
RL: RCT (Reactant)
(reaction of, with chlororesorcinol)
IT 95-87-4
RL: RCT (Reactant)
(reaction of, with methylbenzoquinone monoimine)
IT 4370-76-7 30168-96-8 30168-97-9
RL: RCT (Reactant)
(reaction of, with phenolate)

IT 4370-75-6
RL: RCT (Reactant)
(reaction of, with xyleneol)
IT 123-30-8
RL: RCT (Reactant)
(reactions of, in oxidative hair dyeing)